## REMARKS

The present application was filed on January 30, 2001 with claims 1-20. In the outstanding Office Action dated December 14, 2005, the Examiner has: (i) rejected claims 1-6, 8-12 and 14-19 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,596,031 to Parks (hereinafter "Parks"); and (ii) rejected claims 7, 13 and 20 under 35 U.S.C. §103(a) as being unpatentable over Parks.

In this response, Applicant traverses the §102 and §103 rejections for at least the reasons set forth below. Applicant respectfully requests reconsideration of the present application in view of the following remarks.

Applicant requests an acknowledgment of the receipt of formal drawings that were filed on April 11, 2001 in the present application.

Claims 1-6, 8-12 and 14-19 stand rejected under 35 U.S.C. §102(e) as being anticipated by Parks. With regard to independent claims 1, 8 and 15, which are of similar scope, the Examiner contends that Parks discloses each of the elements set forth in these claims. Applicant, however, respectfully disagrees with the Examiner's contention. Parks is directed to a markup language for generating news story documents and system for processing those documents. The news story markup language, as taught by Parks, "provides constraints to define timing information for a news story, to define machine control commands that may be used to automate control functions, and to associate multiple elements within one or more documents for the purpose of synchronizing the elements" (Parks; column 3, lines 27-32).

Parks discloses generating an NSML (news story markup language) document to represent content and information about a news story. This NSML document cannot reasonably be analogized to the methods and apparatus for forming a document model for automatically constructing a semantically and syntactically valid document in accordance with the claimed invention. Specifically, Parks discloses that the NSML document includes "an ordered hierarchy of elements that contain tags, identifiers, and text," each of the elements corresponding to a tag in the news story document (Parks; column 9, lines 20-22). Thus, the elements disclosed in Parks may be more appropriately analogized to the tag elements recited in claims 1, 8 and 15. In contrast to the claimed invention, however, Parks fails to teach or suggest the association of one or more model elements with each of the tag elements.

The present specification explicitly defines a model element as being a component of the document model that is associated with a tag element and being operative to <u>capture at least a portion of the semantics of the corresponding tag</u> (Specification; page 7, lines 18-20). A model element represents one possible alternative to the information included in the corresponding tag (Specification; page 7, lines 21-22). The model element of the claimed invention represents a decision point in the document (Specification; page 8, lines 23-24). The item to which the Examiner analogizes with a model element recited in the subject claims, namely, "CELL" (Parks; FIG. 3B, reference numeral 343) is clearly used to represent and capture <u>data (attribute) values</u>. Specifically, Parks states that "The CELL element 343 contains a number of <u>attributes</u> 346" (Parks; column 11, lines 63-64; emphasis added). The CELL element taught by Parks is not analogous to model elements, as recited in claims 1, 8 and 15, since it cannot capture <u>semantic information</u> of a corresponding tag. Parks states that the CELL element is merely "used to define a presentation area for a single field of a news document" (Parks; column 11, lines 62-63). As such, the CELL element disclosed in Parks may be more appropriately analogized to the *Value Elements* of the present invention (see, e.g., Specification; page 7, lines 14-17).

As stated in Applicant's previous response dated July 18, 2005, semantics describes the "<u>meaning</u> of a string in some language, as opposed to syntax which describes how symbols may be combined independent of their meaning" (Denis Howe, "The Free On-line Dictionary of Computing," ©1993-2005; emphasis added). Semantic information defines additional constraints that, although it is not considered to be part of the grammar syntax, affects the formation of the document in some way (Specification; page 1, lines 15-16). For example, while a grammar may describe the data type, the <u>form</u> of the data (e.g., date/time format) can vary depending on the semantics of the document (e.g., U.S. time vs. U.K. time vs. military time, etc.) (Specification; page 2, lines 21-23). Parks fails to disclose a mechanism for automatically capturing semantic information in a document model, without the use of conventional XML editors, and thus the system taught by Parks is distinguishable from the claimed invention.

The model elements of the claimed invention are further distinguishable from the elements disclosed in Parks in that a model element <u>does not</u> directly represent a tag in the corresponding document. Rather, a model element, in accordance with the claimed invention, is associated with a tag element (which directly represents a tag in the document). In contrast to the claimed invention,

the CELL element disclosed in Parks, which the Examiner analogizes with a model element recited in claims 1, 8 and 15, directly represents a corresponding tag, cell_tag, in the document, as shown, for example, in FIG. 4A.

For at least the above reasons, Applicant asserts that claims 1, 8 and 15 are patentable over the prior art of record. Accordingly, favorable reconsideration and allowance of these claims are respectfully solicited.

With regard to claims 2-6, which depend from claim 1, claims 9-12 and 14, which depend from claim 8, and claims 16-19, which depend from claim 15, Applicant submits that these claims are also patentable over the prior art of record by virtue of their dependency from their respective base claims, which are believed to be patentable for at least the reasons given above. Furthermore, one or more of these claims define additional patentable subject matter in their own right.

For example, claims 3, 10 and 17 further define the process of forming the document model as including the step of associating "a group element with a tag element corresponding to a tag in the document when the tag associated therewith includes a plurality of sub-tags, the group element being a child of the model element corresponding to the sub-tree" (emphasis added). Parks fails to teach or suggest at least this additional feature of the invention. With regard to claims 3, 10 and 17, the Examiner contends that Parks teaches "associating a group element (Fig. 3B: 360) with a tag element corresponding to a tag in the document when the tag associated therewith includes a plurality of sub-tags (Fig. 3C: 361, 362, 363), the group element being a child of the model element corresponding to the sub-tree (Fig. 3B: 360)" (Office Action; page 4, paragraph 3). Applicant respectfully disagrees with this contention.

Specifically, while the tag element, model element and group element may be broadly defined in the present specification, it is not proper for the Examiner to impute a definition to each of these elements which is contrary to the meaning explicitly set forth in the specification and claims. For example, the specification clearly states that "each model element being a child of the tag element and corresponding to a different semantic component" (Specification; page 7, lines 24-25). Furthermore, claims 3, 10 and 17 require that a group element, which is separate and distinct from a model element or tag element, be "a child of the model element corresponding to the sub-tree." The Examiner contends that the element "STORY" (360) disclosed in Parks is analogous to the model element recited in the subject claims. Applicant respectfully disagrees with this

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contention and submits that, since the STORY element is a direct child of the main element "NMSL" (301), which may be analogized to a tag element as defined by the present specification, Parks fails to teach or suggest the specific inventions set forth in claims 3, 10 and 17.

For at least the reasons given above, claims 2-6, 9-12, 14 and 16-19 are believed to be patentable over the prior art of record, not merely by virtue of their dependency from their respective base claims, but also in their own right. Accordingly, favorable reconsideration and allowance of these claims are respectfully requested.

Claims 7, 13 and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Parks. With regard to these claims, the Examiner acknowledges that Parks "does not specifically teach wherein the document to be constructed was an XML document" (Office Action; page 6, paragraph 2). However, the Examiner contends that such additional features "would have been obvious to one of ordinary skill in the art at the time of the invention" (Office Action; page 6, paragraph 2). Applicant respectfully disagrees with this contention and asserts that claim 7, which depends from claim 1, claim 13, which depends from claim 8, and claim 20, which depends from claim 15, are also patentable over the prior art of record by virtue of their dependency from their respective base claims, which are believed to be patentable for at least the reasons given above. Accordingly, favorable reconsideration and allowance of claims 7, 13 and 20 are respectfully solicited.

In view of the foregoing, Applicant believes that pending claims 1-20 are in condition for allowance, and respectfully request withdrawal of the §102 and §103 rejections.

Respectfully submitted,

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